

Disclosure of the Abstract

In the case of gas injection, a discharging temperature is not reduced sufficiently, and if an amount of injection is increased, a liquid refrigerant flows into a cylinder and the liquid is compressed, and the reliability can not be ensured.

A refrigerator wherein at least a compressor, a radiator, a first throttle apparatus and an evaporator are connected to one another in an annular form to constitute a main circuit of a refrigeration cycle, a refrigerant which can be brought into a supercritical state by the radiator during operation is charged into the refrigeration cycle, the refrigerator comprises an injection pipe for injecting the refrigerant on the side of an outlet of the radiator into a cylinder of the compressor.